Skin Cancer Risk Rises After Organ Transplant

BY DAMIAN McNAMARA
Miami Bureau

Key Biscayne, Fla. — With the increasing number of organ transplant recipients living longer, it has become increasingly important to treat and counsel these patients about their significantly higher risk of skin cancers, according to a presentation at the annual meeting of the International Transplant Skin Cancer Collaborative.

Noah Worcester Dermatosocical Society

Mucocutaneous lesions are the most common cancer type among organ transplant patients. The risk may be highest for squamous cell carcinoma, but it is elevated for rare cancer types. In addition, skin cancers tend to be more aggressive and carry a worse prognosis for organ recipients.

Greater patient education is warranted. The International Transplant Skin Cancer Collaborative (www.itscs.org) recommends increased prevention efforts.

There are more than 150,000 living organ transplant recipients. It is likely that 70% of these patients will eventually develop skin cancer, according to Marc D. Brown, M.D., professor of dermatology, University of Rochester (N.Y.).

An estimated 17% of tumors are mucocutaneous. Patients also develop lymphoma (17%), lung cancer (6%), and Kaposi’s sarcoma, uterine, and colorectal cancers (4%) each. Skin cancer can include squamous cell carcinoma, basal cell carcinoma, melanoma, sarcoma, Merkel cell carcinoma, angiosarcoma, verrucaous carcinoma, anaplastic fibroxanthoma, and leiomyosarcoma.

There is a 65-fold increased incidence of cutaneous squamous cell carcinoma in organ transplant recipients, compared with the general population in Norway and elsewhere (J. Am. Acad. Dermatol. 2000;40:697-701). A total of 35% reported regular sunscreen usage in the survey, but 35% also reported getting a sunburn the previous summer.

A separate survey of 122 renal transplant recipients found 41% could not recall skin cancer education (J. Am. Acad. Dermatol. 1999;40:697-701). Although 27% reported seeing a dermatologist after transplantation, only 14% had regular follow-up.

A Typical, Challenging Case

A 68-year-old white male with Fitzpatrick type III skin had a bilateral lung transplant in 1993. Four years later, he developed squamous cell carcinoma, primarily in situ. The lesions progressed, and he was diagnosed with squamous cell carcinoma on his vertex and parietal scalp areas in 1998. The lesions were present against a background of multiple actinic keratoses, and were removed by excision and curettage.

In mid-2000, the patient had two Stage Mohs’ surgery for the vertex squamous cell carcinoma. Two months later, he presented with poorly differentiated squamous cell carcinoma without a connection to the epidermis,” said Dr. Brown.

The patient had radiation therapy after developing eight metastases within 1 month. In September of 2000, he developed additional metastases with a recurrence in the radiation site. Chemotherapy reduced his immunosuppressive drug by 50%, and the patient developed more than 30 metastatic nodules. The patient then had multiple excisions and radiation therapy with capecitabine and cetuximab.

Neurofibromatosis Patients Have Normal Ca Rates as Adults

BY LINDA LITTLE
Contributing Writer

Grapevine, Tex. — Patients with a history of neurofibromatosis type 1 do not have an increased risk of cancer after they reach adulthood, according to findings from a study conducted in Denmark.

In a long-term follow-up study of 212 individuals with neurofibromatosis type 1 (NF1) and 128 relatives, children and adolescents with neurofibromatosis had twice the expected rate of cancer—but during adulthood, their risk of cancer was no different from that of the general population, S. Asger Sorensen, M.D., reported at a meeting sponsored by the American College of Medical Genetics.

“It was thought that patients with NF1 had a higher rate of cancer not only in childhood but in the later years of life,” said Dr. Sorensen, emeritus professor of genetics at the University of Copenhagen.

Individuals with NF1 were thought to have an increased risk of developing breast cancer or other malignancies during adulthood. “But there seems to be no excess of cancer in neurofibromatosis patients during adult ages,” he said.

Neurofibromatosis—an autosomal dominant disorder that results in tumor growth—affects 1 person in 4,000, with about 100,000 Americans estimated to have the condition. These figures included both forms of the disease, type 1 and type 2.

The probands in the study had been hospitalized with the disease, whereas the affected relatives had milder cases of disease and were diagnosed only after the start of the initial study noted John Mulvihill, M.D., professor of genetics at the University of Oklahoma Health Sciences Center, Oklahoma City.

Dr. Mulvihill, a coauthor of the study, said cancer incidence was higher in the probands who had been hospitalized than in other affected family members. Mortality was worse in childhood and adolescence but much worse in the hospital-based cases than other family members who were affected but some patients never wind up in the hospital.

The patients, some of whom were identified as early as 1924, were first described in a 1951 study and were followed up in 1983 and 2003, Dr. Sorensen said.

In 1983, the researchers evaluated the remaining 16 NF1 patients who had been hospitalized with the disease and 26 relatives diagnosed in the 1951 study as having milder forms of NF1. By the time of the March 2003 follow-up, only five relatives were still alive.

Death certificates and hospital records were obtained for the 37 individuals who died during the 1983 follow-up. Survival curves were prepared by standard life-table methods, and the causes of death were compared with those in the general population.

At the latest follow-up, the survival rate showed the same trend as that observed at the first follow-up. The causes of death were similar to the causes of death in the population at large.

Among the 16 probands and 26 affected relatives, 9 had a cancer, all outside the nervous system. For the entire cohort, the age at cancer diagnosis was significantly younger among individuals with NF1 occurring primarily in childhood and adolescence.

But by adulthood, the incidence of 1951 study was as that observed at the first fol- low-up. The causes of death were compared with those in the general population.

What is new is that the excess cancer rate in childhood is caused by cancer of the nervous system, brain, and peripheral nerves, Dr. Mulvihill said. “This is an important study,” he said. “The picture isn’t as bad as people thought. When doctors talk with a couple about what lies ahead for them, they don’t want to paint a picture that is overly grim.”

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What is new is that the excess rate of cancer is confined to a young age,” Dr. Mulvihill said. “Kids and adolescents with NF1 have excess cancer, but after that, the cancer rate approaches that of the average population.”